

first edition, Appendix II alone may be purchased from the publisher for about \$0.75.—D.B.L.

CHROMOSOMES AND SPECIATION IN FERNS, by Kunio Mitui. Sci. Rep. Tokyo Educ. Univ. [Tokyo Kyoiku Daigaku], **B**, **13**:285–333. 1968.—This is the first comprehensive listing of chromosome numbers of the Japanese ferns, treating 66 genera and 202 species. The mean sizes of the chromosomes of some of the species are stated; these vary from $3\ \mu$ to $7.5\ \mu$. A number of presumed triploids, autotetraploids, and allotetraploids were authenticated cytologically, some of which are distinguishable morphologically by spore size, stomatal size, texture, and habitat. Most homosporous ferns have relatively large chromosome numbers compared with phanerogams; Mitui believes that most modern diploid species are in reality old polyploids derived from ancient and extinct species with lower numbers. He considers that a similar chromosome size often indicates relationships among the genera, that the older genera have higher base numbers, that advanced genera have many polyploid or apogamous species, and that primitive genera like *Dennstaedtia* have many aneuploid species.—C. V. M.

BIBLIOGRAPHY TO FLORAS OF SOUTHEAST ASIA, by Clyde F. Reed. Published by the author, 10105 Harford Road, Baltimore, Md. 21234. 1969. 191 pp. \$3.50.—Merrill and Walker's useful "A Bibliography of Eastern Asiatic Botany (1938, Supplement, 1960) covered the essentially temperate parts of eastern Asia from China and Taiwan northward, but not tropical southeastern Asia. This new index covers Burma, Laos, Thailand, Cambodia, Viet Nam, Malaya, and Singapore. The title is a little misleading because the work includes not only floras, which are rather few, but chiefly smaller taxonomic papers and also papers on fossil, cultivated, agricultural, and medicinal plants, forest timbers, and taxonomically oriented ecological papers. The bibliography would be more useful if it contained a subject index.—C. V. M.